

REMARKS

By the foregoing amendments claims 1, 3, 13, 16 and 22 have been amended. Thus, claims 1-23 remain in the application.

Claim 3 was objected to under 37 CFR 1.75(c) in the Office Action as being of improper dependent form for failing to further limit the subject matter of a previous claim. Responsive to the objection, by the above amendments claims 3 has been amended so as to depend from claim 1. Claim 3 now recites that the at least one component includes both a detachable fan housing and a detachable filter housing. In view of these changes, it is respectfully submitted that claim 3 is proper under 37 CFR 1.75(c).

Claim 3 was rejected in the outstanding Office Action under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, it was stated that the claim was unclear if the detachable fan housing and a detachable fan housing mentioned in claim 3 are the same as in claim 2 or a second set of detachable fan housing and detachable filter housing. Responsive to this rejection, as indicated above claim 3 has been amended so as to depend from claim 1 and avoid the indefiniteness referred to in the rejection. In view of the changes, it is respectfully submitted that claim 3 is proper under 35 U.S.C. § 112, second paragraph.

Claims 1-23 stand rejected in the Office Action under 35 U.S.C. § 102(b) as being anticipated by Moredock, U.S. Patent No. 6,319,304. The

patent to Moredock was relied upon for the reasons and in the manner stated on pages 3-5 of the Office Action.

Claims 22 and 23 are further rejected in the Office Action under 35 U.S.C. § 103(a) as being unpatentable over Moredock, U.S. Patent No. 6,319,304 in view of Petersen, U.S. Patent No. 4,048,911. The patents are combined for the reasons and in the manner stated on page 6 of the Office Action.

These rejections are hereby traversed and reconsideration thereof is respectfully requested in view of the above amendments to the claims and the remarks set forth below.

The present invention is directed to an improved powered, atmospheric ejective, air cleaning system and a method of making the same for efficiently removing debris from debris laden air to supply clean air to a device with which the system is used. For example, the invention is useful in connection with total air flow applications such as ventilation systems, as a fixed air flow provider for heating exchangers and heating and air conditioning systems, and with devices having a variable air flow demand, particularly internal combustion engines which exert a variable vacuum on their air intake to be supplied with clean air.

As recited in claim 1 as amended, the improved powered air cleaning system of the invention comprises a flow path extending through the system from an inlet to an outlet. A motor-driven fan is located along the flow path to draw particulate debris laden air into the inlet and rotate it about an axis to form a rotating flow that stratifies the debris laden air with the heaviest particles in the outermost orbits of the rotating flow. An ejector port is

provided for ejecting particulate debris laden air from the stratified rotating flow in the system. An air filter is located within the rotating flow and across the flow path upstream of the ejector port and the outlet for filtering air from the innermost orbits of the stratified rotating flow, the air filter being elongated in the direction of the axis so that the rotating flow about the filter causes a self cleaning action on the filter. This self cleaning action on the filter is described in lines 11 and 12 on page 8 of the Substitute Specification, for example. Further, the system includes at least one component defining a portion of the flow path through the system, which component is separable from the system. This modular nature of the system affords flexibility in making the system and devices with limited spaces for the system components are referred to in the application specification. The aforementioned references relied upon in the outstanding rejections of the claims do not anticipate, 35 U.S.C. § 102, or render obvious, 35 U.S.C. § 103, the improved air cleaning system and method of making a powered air cleaning system recited in the application claims as amended.

The commonly owned patent to Moredock, U.S. Patent No. 6,319,304 discloses a powered low restriction air precleaner device. The airflow outlet shroud 38, Figure 1, of the device directs the clean air to the radiator core or air filter media or the combustion engine intake, 37 in Figure 1. The airflow outlet shroud 38 can also support or hold the airflow media 37 in place as noted in column 4, lines 43-47. However, Moredock does not disclose or suggest a powered air cleaning system having an air filter located within the rotating flow and across the flow path upstream of the ejector port, 32 in Figure 1b of Moredock, and the outlet for filtering air from the innermost orbits

of the stratified rotating flow, the air filter being elongated in the direction of the axis about which the flow rotates so that the rotating flow about the filter causes a self cleaning action on the filter and disclosed and claimed in the application claims as amended. Each of the independent claims, 1, 16 and 22, has been amended to recite these features of the present invention and thereby clearly distinguish over Moredock under 35 U.S.C. § 102 and 103.

The secondary reference to Peterson is directed to an air supply apparatus wherein the filter is located downstream of an ejector port. Peterson does not provide for the aforementioned deficiencies of Moredock. Peterson was relied upon in the rejection of claims 22 and 23. These claims as amended are believed to patentably define over the combination of references under 35 U.S.C. § 103.

In view of the above amendments and remarks, it is respectfully submitted that the claims as amended are now in condition for allowance. Accordingly, reconsideration and allowance is respectfully requested.

An Information Disclosure Statement is filed herewith.

A Petition for Extension of Time is filed herewith to permit the timely filing of this amendment within the third month extension of time.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 01-2135 (Case No. 766.42710AX0) and please credit any excess fees to such deposit account.

Respectfully submitted,

/Ronald J. Shore/   
Ronald J. Shore  
Registration No. 28,577  
ANTONELLI, TERRY, STOUT & KRAUS, LLP

RJS/kmh